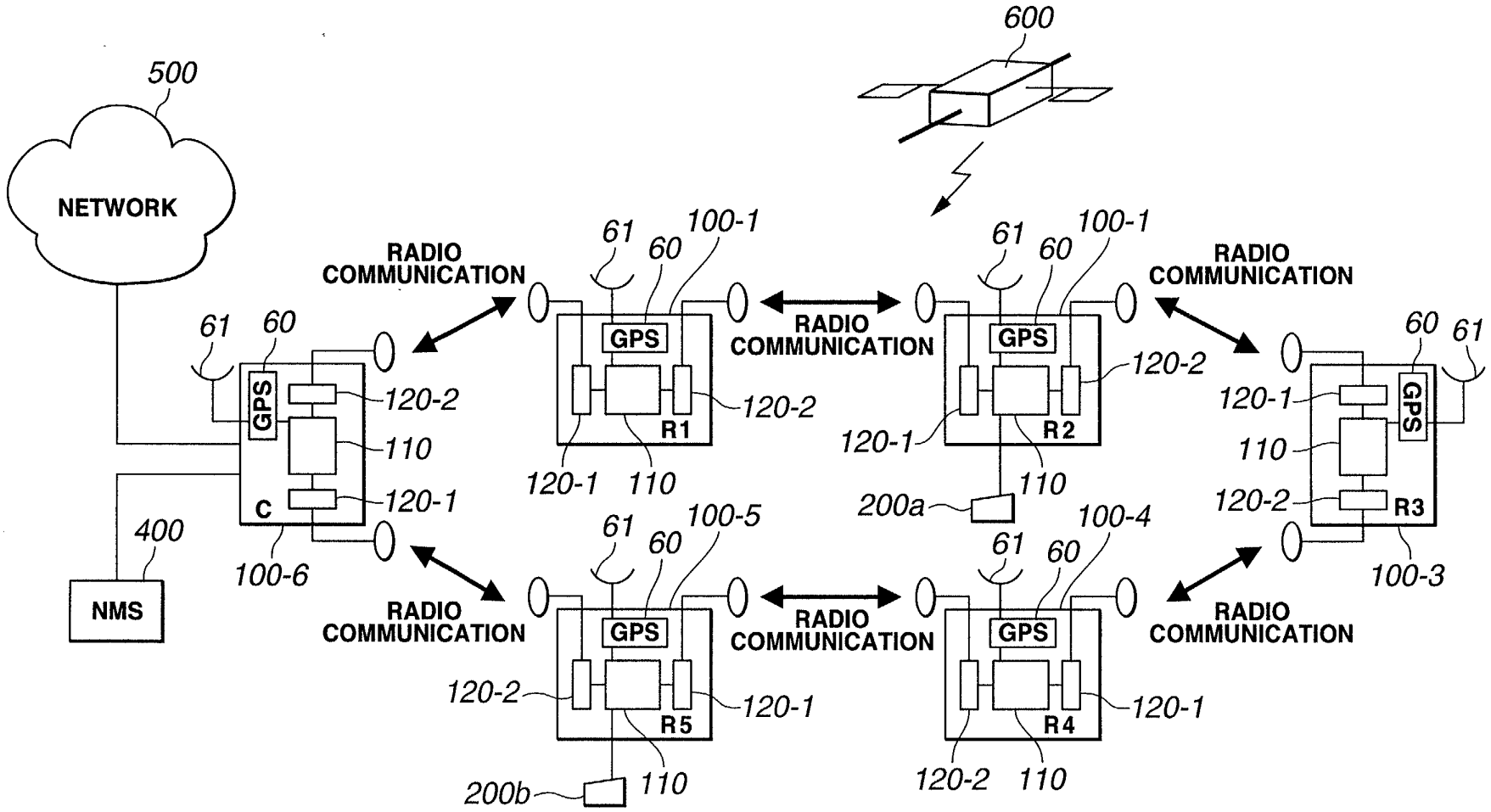
600
500
NETWORK
RADIO COMMUNICATION
RADIO COMMUNICATION
RADIO COMMUNICATION
RADIO COMMUNICATION
RADIO COMMUNICATION
RADIO COMMUNICATION
61
60
100-1
GPS
120-2
110
120-1
C
R1
R2
R3
R4
R5
400
NMS
100-6
100-5
100-4
100-3
200a
200b

FIG.1

20111'6S12h00t

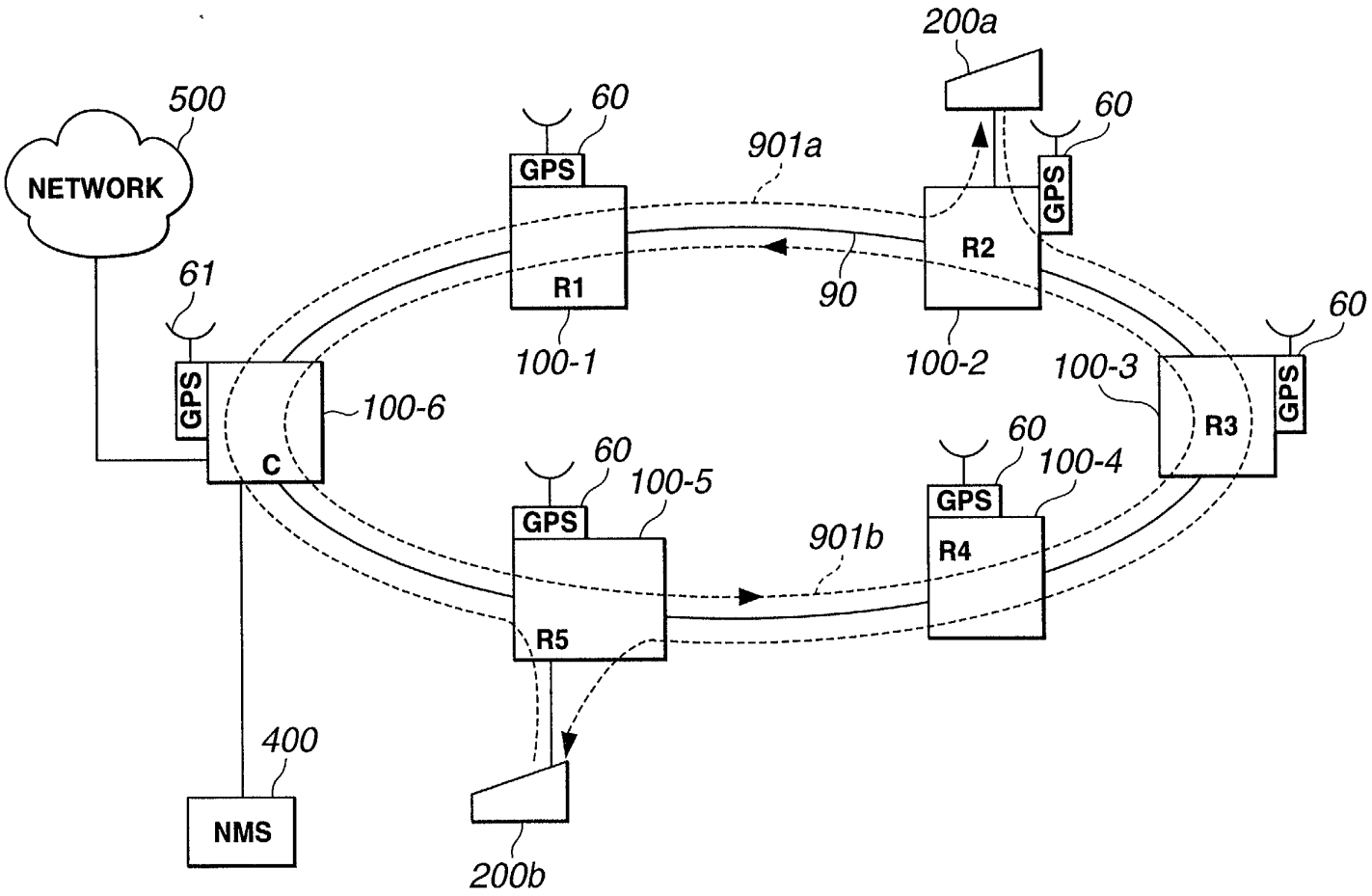

FIG.2

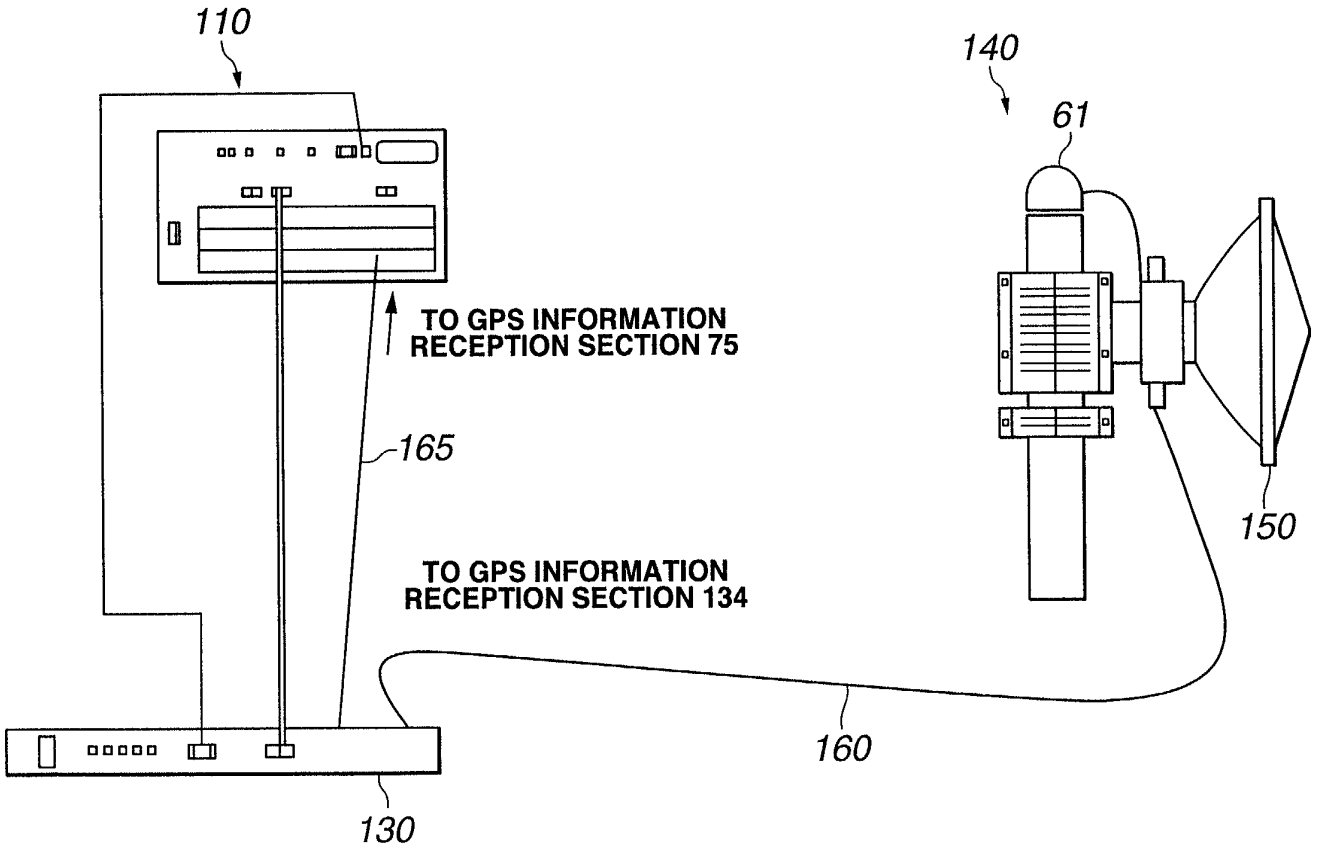
110
140
61
TO GPS INFORMATION
RECEPTION SECTION 75
165
150
TO GPS INFORMATION
RECEPTION SECTION 134
160
130

FIG.3

20110 Bstract

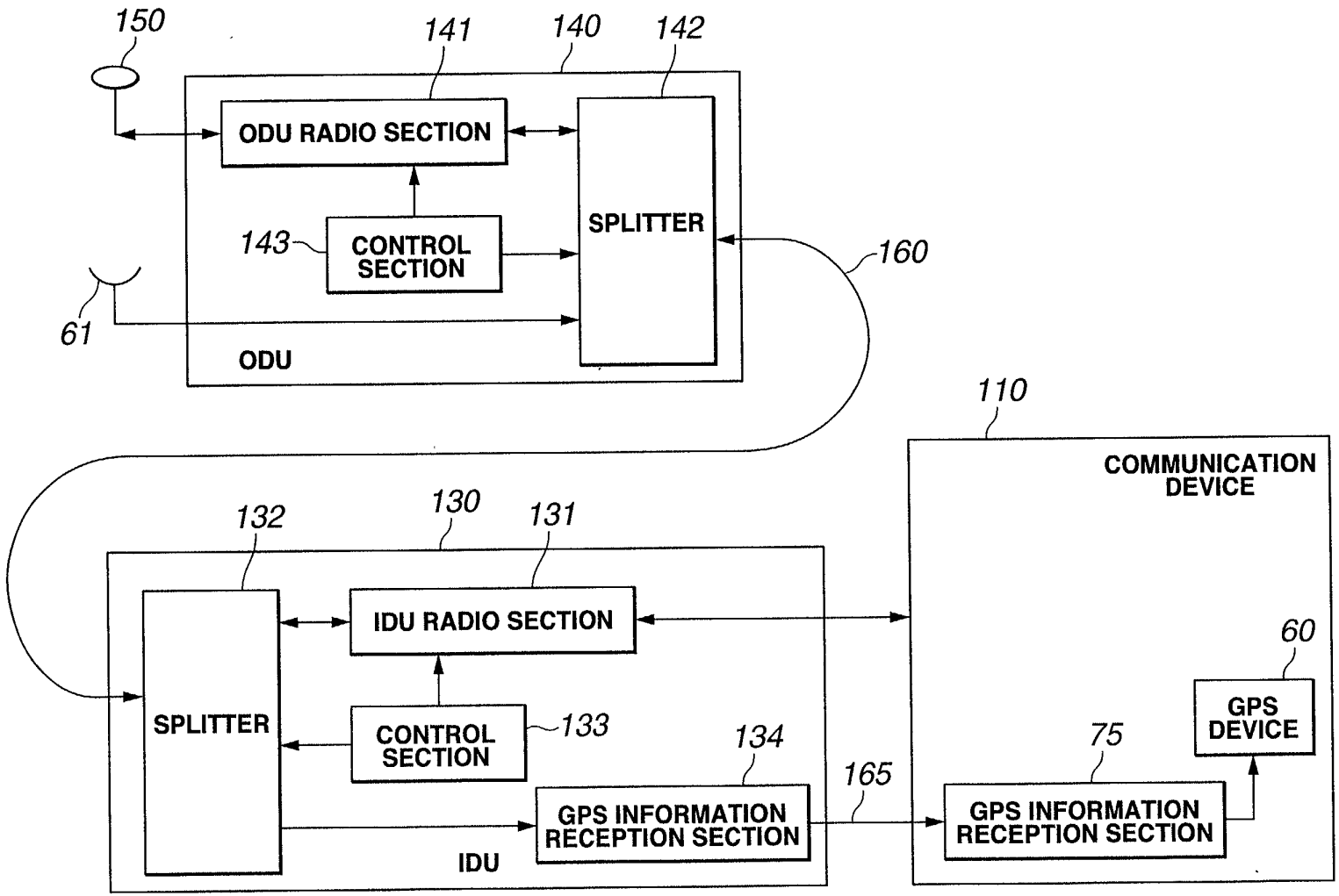

FIG.4

20110 6S12h00f

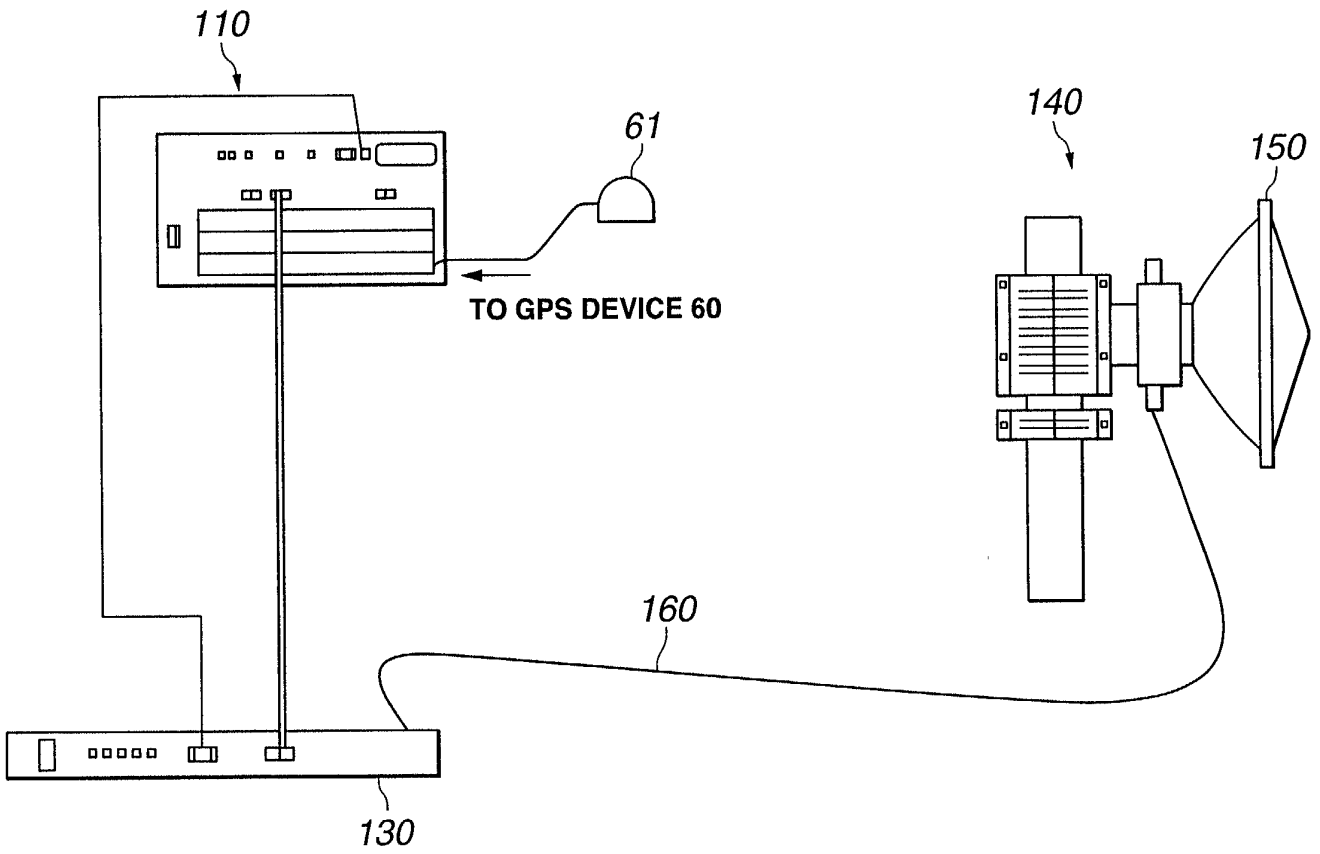

FIG.5

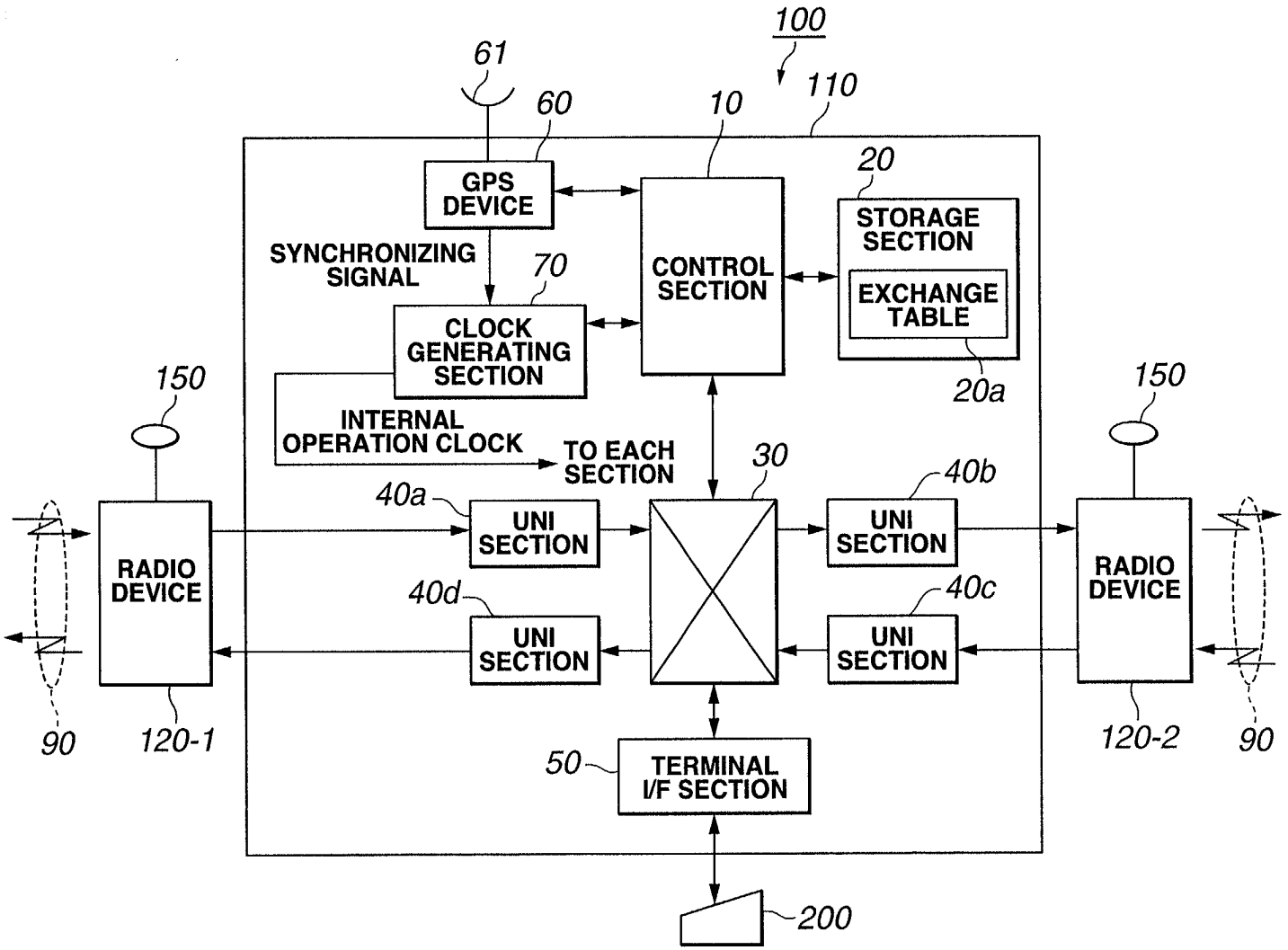
100
61
60
10
110
GPS DEVICE
20
STORAGE SECTION
EXCHANGE TABLE
20a
SYNCHRONIZING SIGNAL
70
CONTROL SECTION
CLOCK GENERATING SECTION
INTERNAL OPERATION CLOCK
TO EACH SECTION
150
150
30
40a
40b
UNI SECTION
UNI SECTION
RADIO DEVICE
RADIO DEVICE
40d
40c
UNI SECTION
UNI SECTION
90
120-1
120-2
90
50
TERMINAL I/F SECTION
200

FIG.6

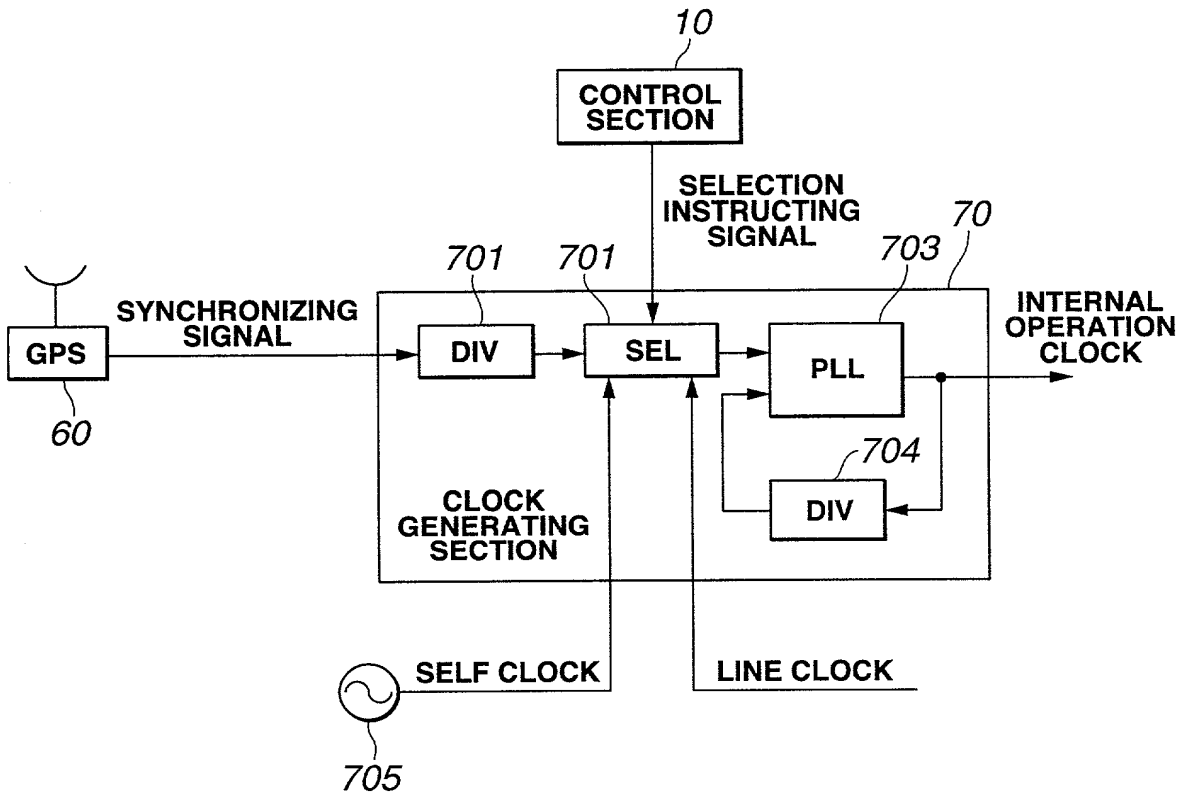
10
CONTROL SECTION
SELECTION INSTRUCTING SIGNAL
70
701
701
703
SYNCHRONIZING SIGNAL
GPS
60
DIV
SEL
PLL
INTERNAL OPERATION CLOCK
704
DIV
CLOCK GENERATING SECTION
SELF CLOCK
LINE CLOCK
705

FIG.7

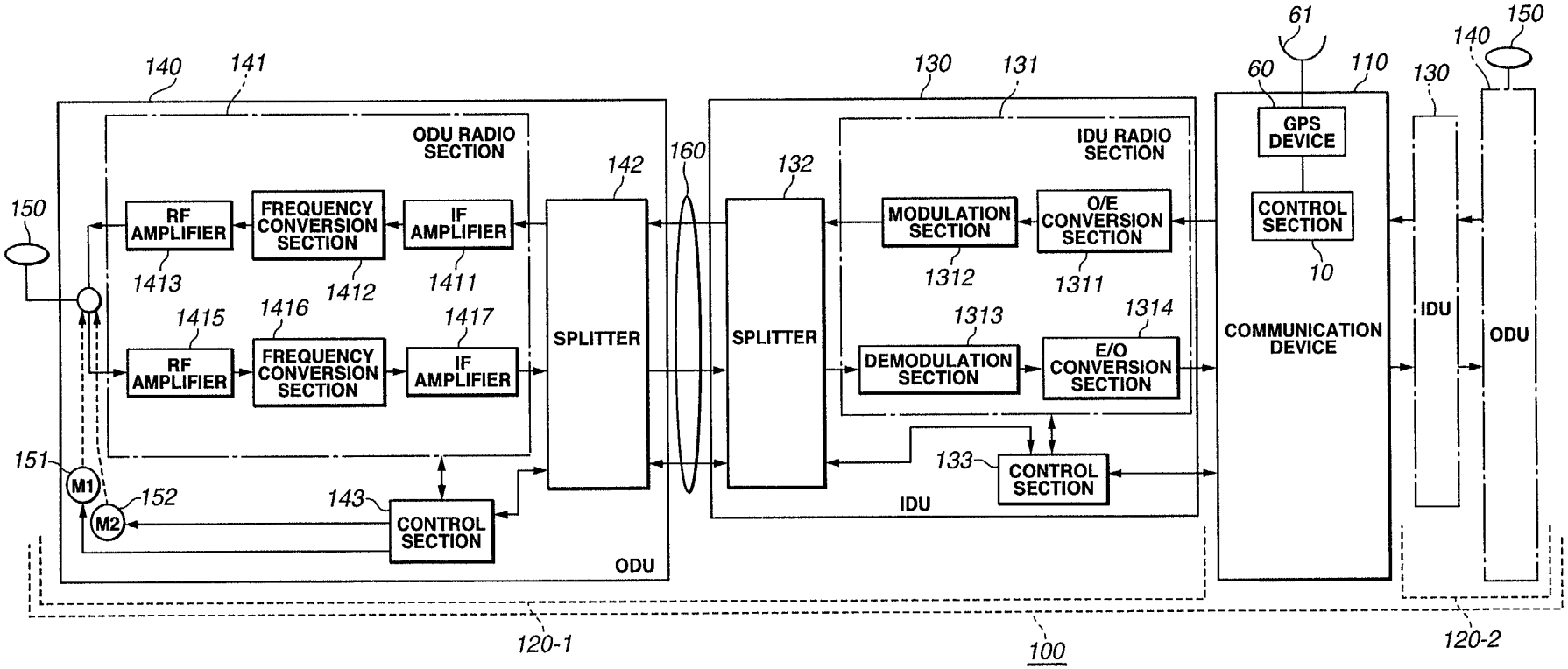
140
141
ODU RADIO SECTION
RF AMPLIFIER
FREQUENCY CONVERSION SECTION
IF AMPLIFIER
1413
1412
1411
1415
1416
1417
RF AMPLIFIER
FREQUENCY CONVERSION SECTION
IF AMPLIFIER
150
151
M1
M2
152
143
CONTROL SECTION
ODU
142
SPLITTER
160
120-1
130
131
IDU RADIO SECTION
132
SPLITTER
MODULATION SECTION
O/E CONVERSION SECTION
1312
1311
1313
1314
DEMODULATION SECTION
E/O CONVERSION SECTION
133
CONTROL SECTION
IDU
61
60
GPS DEVICE
110
CONTROL SECTION
10
COMMUNICATION DEVICE
130
IDU
140
150
ODU
120-2
100

FIG.8

20TTTO"6ST2H00T

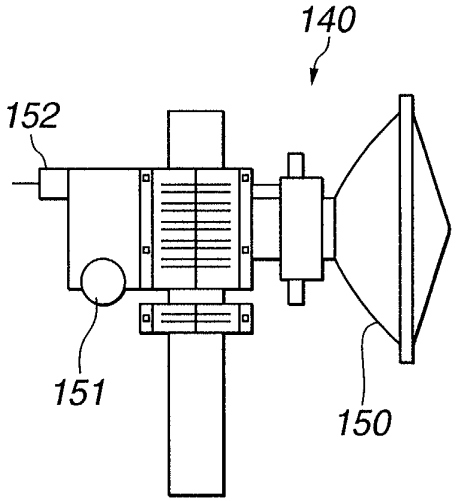

FIG.9(a)

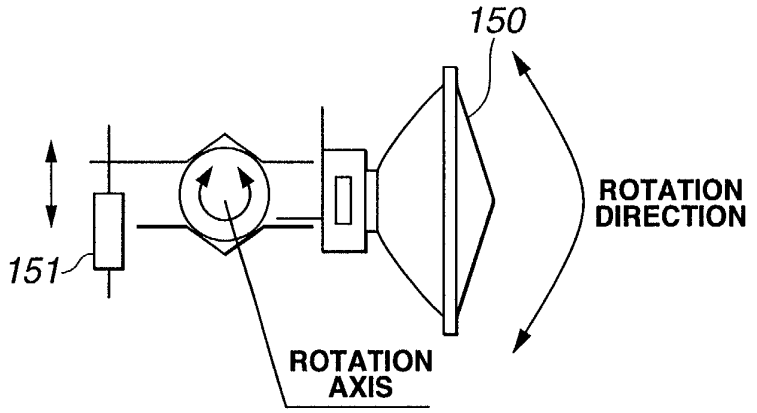

FIG.9(b)

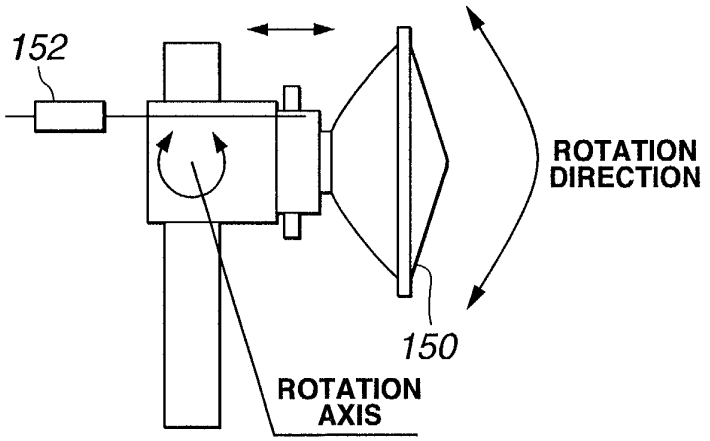

FIG.9(c)

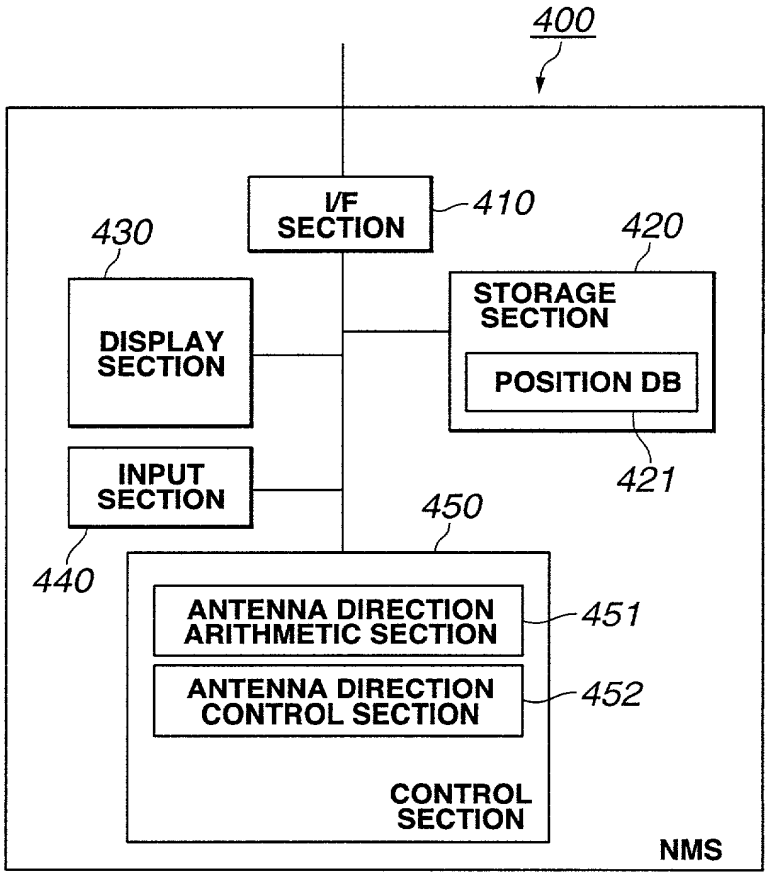
400
I/F SECTION
410
430
420
DISPLAY SECTION
STORAGE SECTION
POSITION DB
421
INPUT SECTION
450
440
ANTENNA DIRECTION ARITHMETIC SECTION
451
ANTENNA DIRECTION CONTROL SECTION
452
CONTROL SECTION
NMS

FIG.10

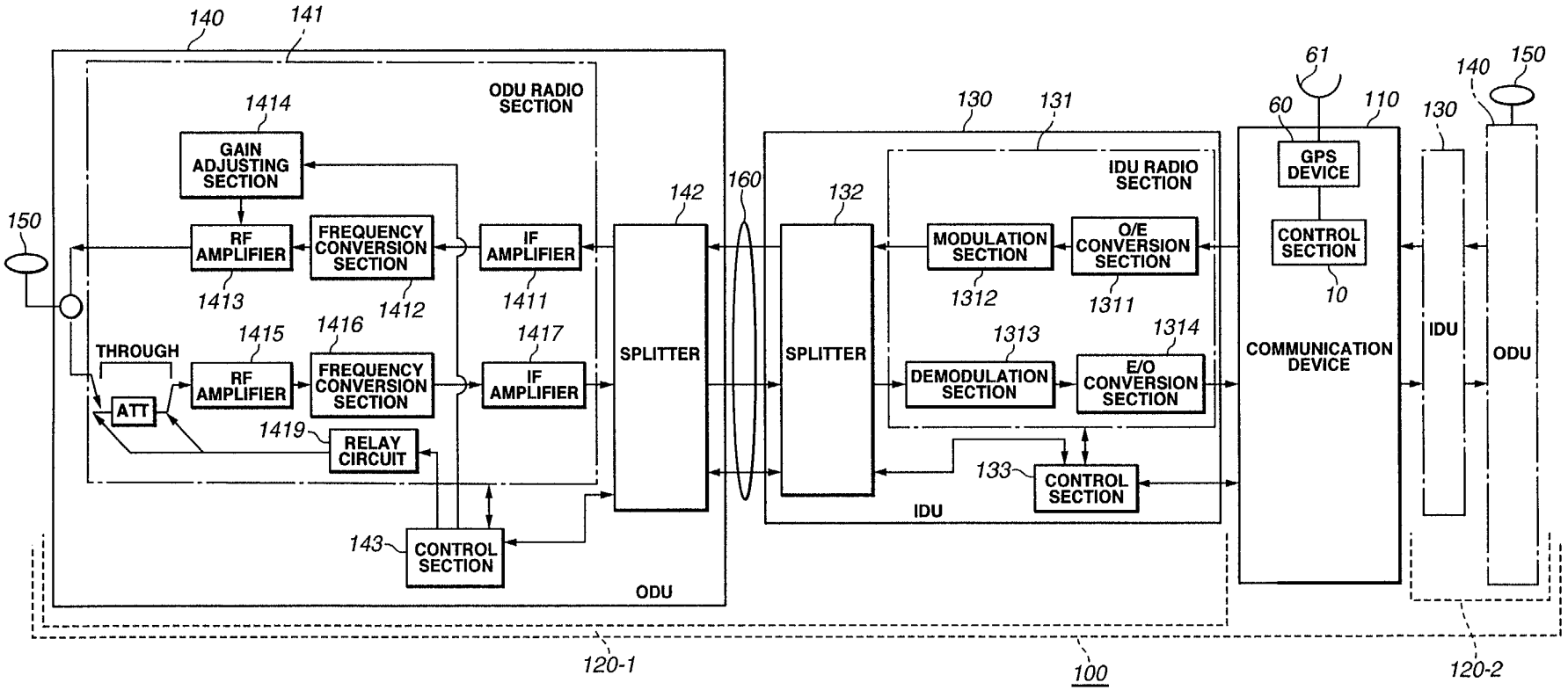
140
141
ODU RADIO SECTION
1414
GAIN ADJUSTING SECTION
150
RF AMPLIFIER
1413
FREQUENCY CONVERSION SECTION
1412
IF AMPLIFIER
1411
THROUGH
1415
RF AMPLIFIER
1416
FREQUENCY CONVERSION SECTION
1417
IF AMPLIFIER
ATT
1419
RELAY CIRCUIT
143
CONTROL SECTION
ODU
142
SPLITTER
160
130
131
IDU RADIO SECTION
132
SPLITTER
MODULATION SECTION
1312
O/E CONVERSION SECTION
1311
1313
DEMODULATION SECTION
1314
E/O CONVERSION SECTION
133
CONTROL SECTION
IDU
61
60
110
GPS DEVICE
CONTROL SECTION
10
COMMUNICATION DEVICE
130
IDU
140
150
ODU
120-1
100
120-2

FIG.11

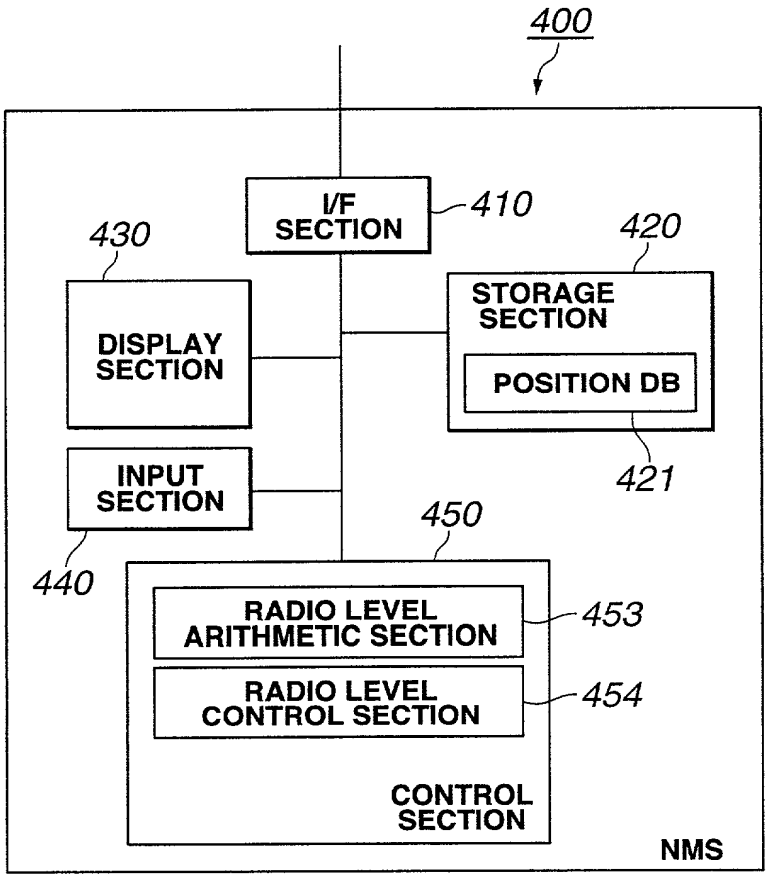
400
I/F SECTION
410
430
420
DISPLAY SECTION
STORAGE SECTION
POSITION DB
421
INPUT SECTION
450
440
RADIO LEVEL ARITHMETIC SECTION
453
RADIO LEVEL CONTROL SECTION
454
CONTROL SECTION
NMS

FIG.12

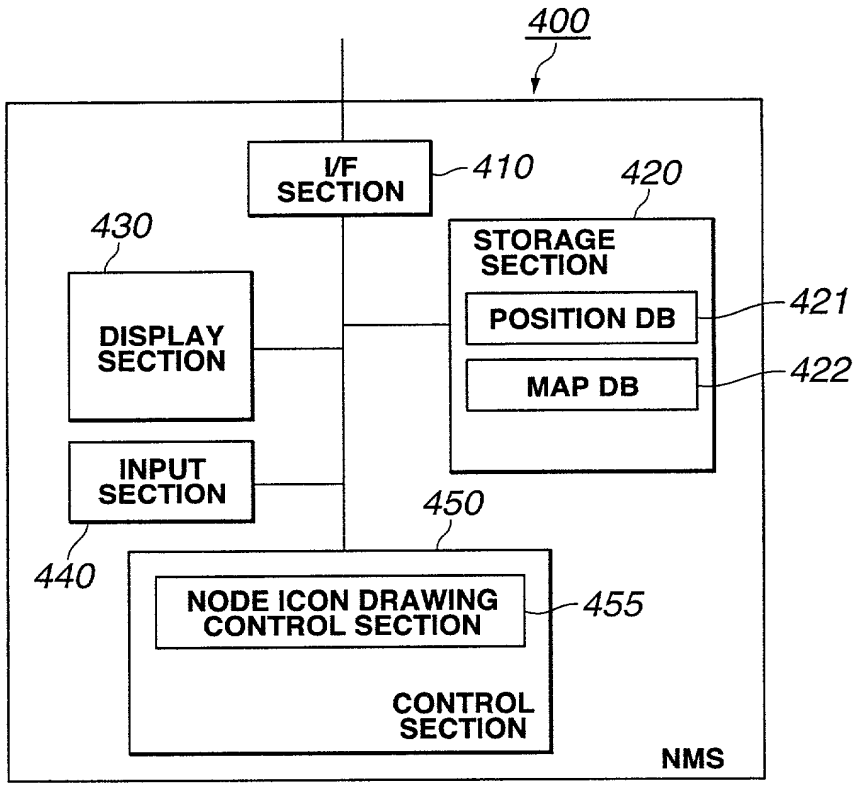
400
I/F SECTION
410
420
430
STORAGE SECTION
DISPLAY SECTION
POSITION DB
421
MAP DB
422
INPUT SECTION
450
440
NODE ICON DRAWING CONTROL SECTION
455
CONTROL SECTION
NMS

FIG.13

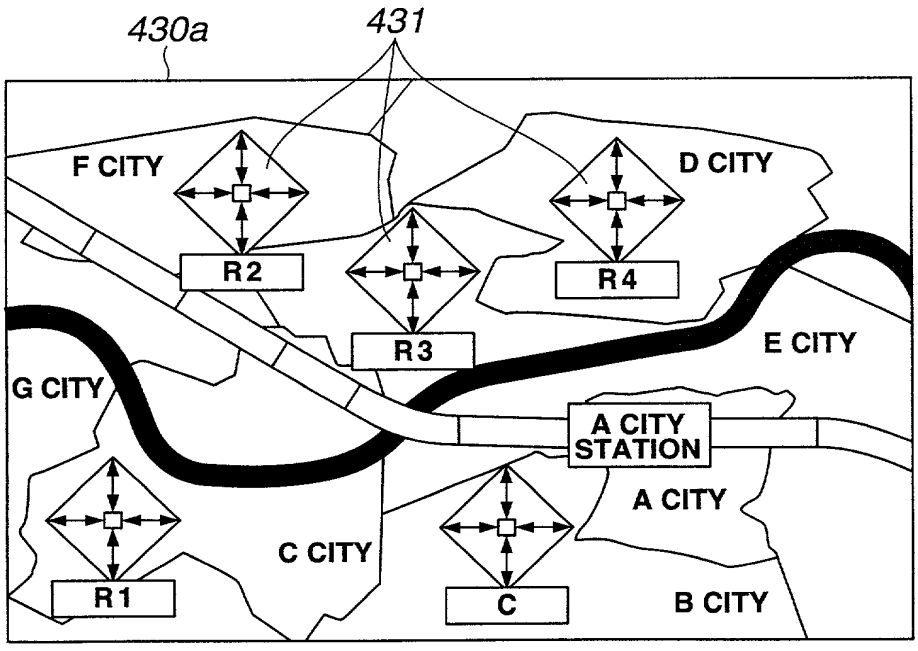
430a
431
F CITY
D CITY
R2
R4
R3
E CITY
G CITY
A CITY STATION
A CITY
C CITY
R1
C
B CITY

FIG.14

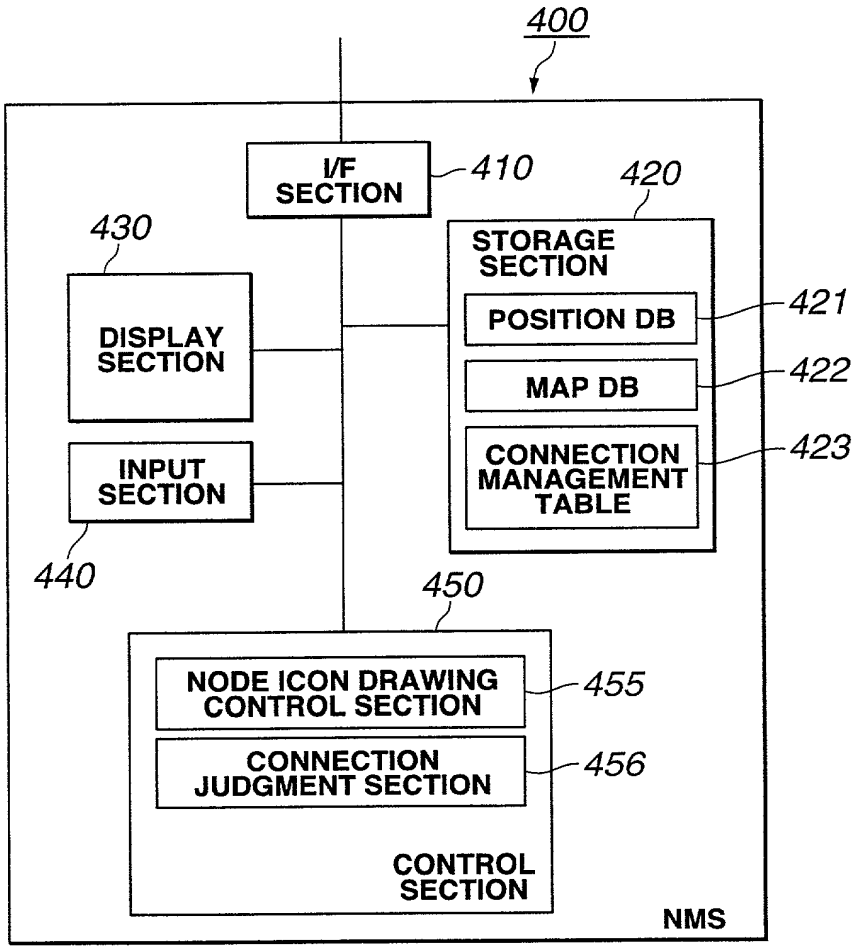
400
I/F SECTION
410
420
430
STORAGE SECTION
DISPLAY SECTION
POSITION DB
421
MAP DB
422
INPUT SECTION
CONNECTION MANAGEMENT TABLE
423
440
450
NODE ICON DRAWING CONTROL SECTION
455
CONNECTION JUDGMENT SECTION
456
CONTROL SECTION
NMS

FIG.15

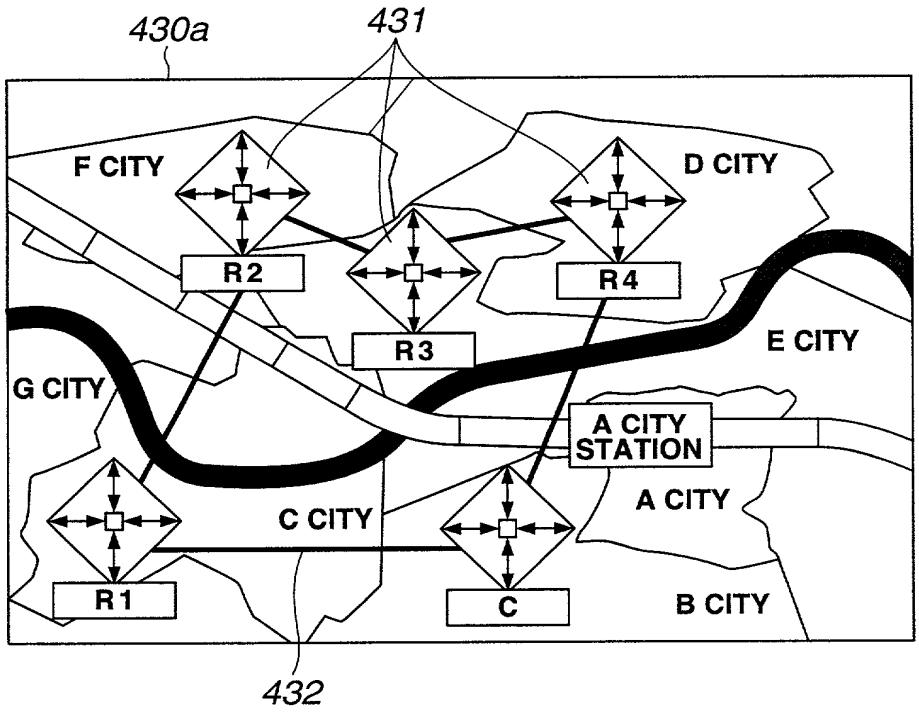
430a
431
F CITY
D CITY
R2
R4
R3
E CITY
G CITY
A CITY
STATION
A CITY
C CITY
R1
C
B CITY
432

FIG.16

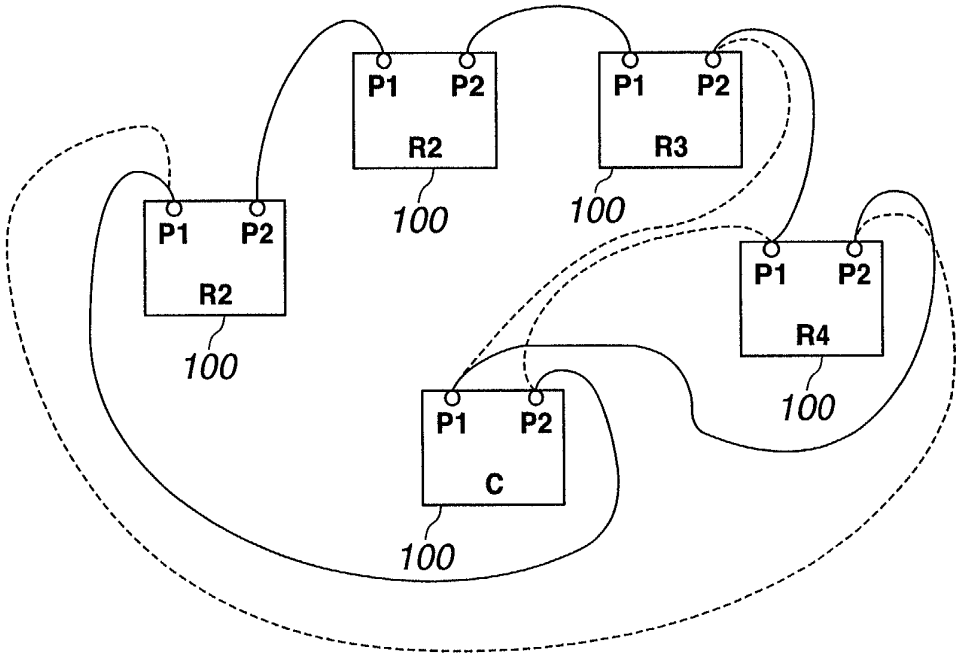

FIG.17(a)

CONNECTION MANAGEMENT TABLE *423*

RN NO.	P1 CONNECTION RN No.	P2 CONNECTION RN No.	
R1	P1:C	P2:R2	NG
R2	P1:R1	P2:R3	OK
R3	P1:R2	P2:R4	NG
R4	P1:R3	P2:C	NG
C	P1:R4	P2:R1	NG

FIG.17(b)

CONNECTION FAILURE:
STATE INDICATED BY DOTTED LINE

RN NO.	P1 CONNECTION RN No.	P2 CONNECTION RN No.
R1	P1:R4	P2:R2
R2	P1:R1	P2:R3
R3	P1:R2	P2:C
R4	P1:C	P2:R1
C	P1:R3	P2:R4

FIG.17(c)

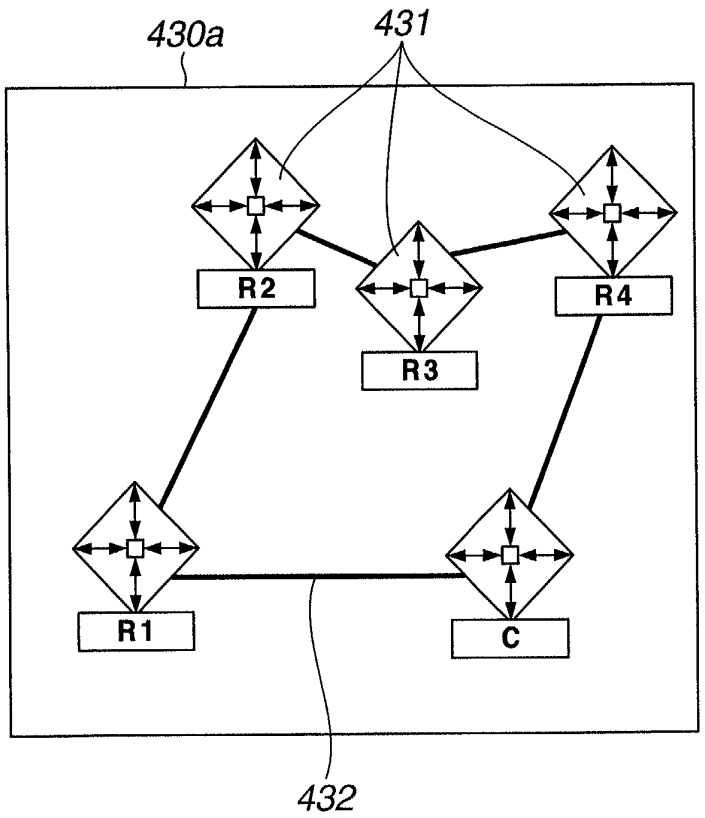

FIG.18(a)

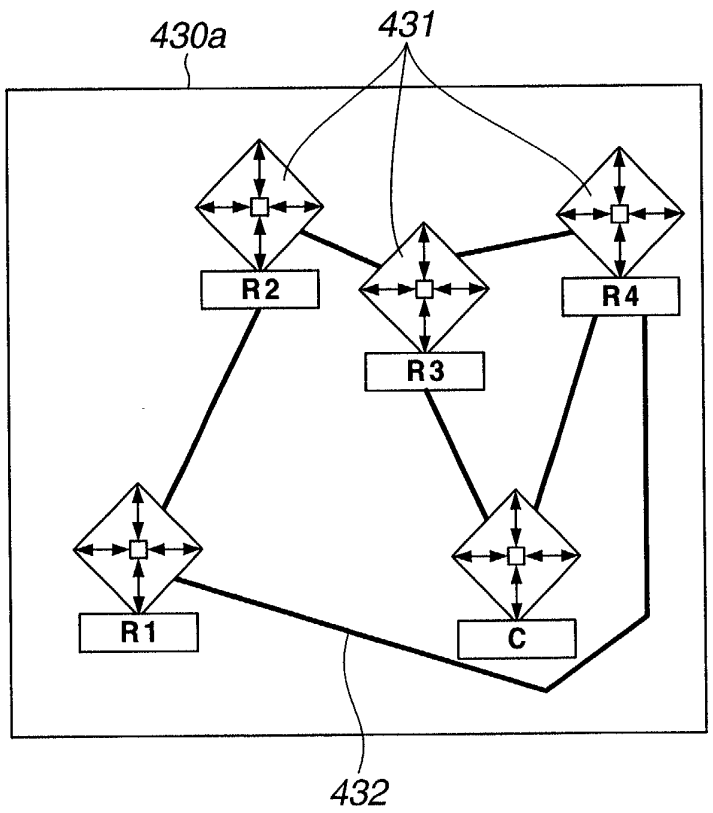

FIG.18(b)